

UNCLASSIFIED

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P.R.C.

HISTORICAL RECORD

of the

762d Radar Squadron, North Truro AFS, Massachusetts 02652

for the period ending

31 March 1965

DEC 26 1978

AIR DEFENSE COMMAND

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Section I.

REQUIRED DATA

1. UNIT AND LOCATION

762nd Radar Squadron (ADC)
North Truro Air Force Station, Mass

2. NAME AND GRADE OF COMMANDER

JOHN W. WEINIG
Major, USAF

3. CHAIN OF COMMAND (Superior Echelons)

BOADS

26th Air Div (SAGE) (ADC)

ADC

4. SUBORDINATE UNITS (Down to and including squadrons)

Detachment #1, 762nd Radar Squadron, Otis AFS, Massachusetts 02542

5. MISSION (Give authority and brief statement of primary mission)

Under the authority of Boston Air Defense Sector Regulation 23-6, the mission of the 762nd Radar Squadron (SAGE) is to provide radar data to the Boston Air Defense Sector Direction Center for the detection, identification and interception of unknown and hostile aircraft under the SAGE system and also provide manual back up intercept control of fighter aircraft

6. PERSONNEL

	OFFICERS	AIRMEN	CIVILIANS	TOTAL
ASSIGNED	14	181	15	210
ATTACHED	3	0	78	81

(Joint Test
Force)

7. EQUIPMENT (Give official nomenclature and quantity of mission-type equipment)

AN/FPS-90 (1)	AN/GRC-27 (2)
AN/FPS-7 (1)	AN/GRR-7 (26)
AN/FPS-26A (1)	AN/GRT-3 (26)
AN/UPK-14 (2)	AN/GPX-7A (1)
AN/FST-2A (1)	AN/UPA-35 (3)
AN/FPS-14 (1)	AN/GPS-T2 (1)
AN/FRT-49 (1)	AN/UPS-T5 (1)
AN/GKA-5 (1)	AN/GPA-30 (1)
AN/GSC-7 (1)	OA-99 (5)

COMMAND AND ADMINISTRATION:

1. The Boston Air Defense Sector Administrative Services section made an administrative Staff Visit to this unit on 16 March 1965. The results of this visit were generally good and it was determined that the administrative function was being satisfactorily performed in spite of the lack of a permanent First Sergeant since October 1964.
2. The Program Systems Testing of the BUIC (Back-Up Intercept Control) II equipment was successfully completed on 15 March by the Joint Test Force and squadron personnel assigned to the BUIC II function. This testing utilized live aircraft and preceded Category II Testing, which is now underway. A total of 5 officers and 10 enlisted men are assigned to the BUIC II function. They have been working with the Joint Test Force and training in a simulated environment as well as through live testing.

COMMUNICATIONS AND ELECTRONICS:

1. Accelerated training of airmen assigned to Radar Maintenance has been progressing very satisfactorily in the 26th Tower and 7 Tower. This has been of utmost importance since this section has experienced the loss of many 5 level airmen during this quarter, with only entry level airmen as replacements.
2. The installation of 3 modification kits was completed in the 26th Tower during this quarter and this tower has operated with limited downtime throughout this period.
3. The floors in the Communications Center were retiled in the month of March, and an additional "Peg Count" on the circuit to Otis AFB resulted in a new line being installed from this unit to that base.

OPERATIONS:

1. The Operations Section participated in several Mode III Training Exercises and implemented an intensive training program for all personnel. There are 5 officers and 23 enlisted men assigned to this section, which conducts the BUIC I function.
2. All the enlisted personnel from this section who were selected to go to Tyndall AFB, Florida for BUIC II training have returned. Two men were honor graduates from the school.

FOOD SERVICES:

1. The Food Services Supervisor was reassigned to Clinton County AFB, Ohio in March. He had been instrumental in installing a sandwich line in the Dining Hall during this period, which has been very successful and well received by all personnel.
2. New drapes and chair back covers were purchased and the Dining Hall continued to efficiently handle the large volume of civilian contract personnel who are members of the Joint Test Force.

UNIT SUPPLY:

1. The former Supply Officer left for Wheelus AFB, Lybia and the station account was inventoried and transferred to the incoming Supply Officer in this quarter.
2. The Motor Pool lost a position from the Unit Manning Document and two personnel during this period. This has left them with an authorized strength of 3 personnel and 3 assigned.

DISPENSARY:

1. There were 248 outpatient visits made during this quarter and 99 immunizations administered.
2. Three sanitation inspections were conducted by this section for veterinary service purposes and the section also received an Administrative Staff Visit from the 551st USAF Hospital at Otis AFB, Mass with no discrepancies noted.

(If additional space is required, continue on blank sheets, size 8x10½, appropriately numbered, and attached securely hereto)

TYPED NAME AND GRADE OF COMMANDER

JOHN W. WEINIG, Major, USAF *for*

SIGNATURE

William J. McDonald, CAPT, USAF

According to the current Air Force definition, Air Force stations (AFSS) come under the category of "minor installation": they are operated by active, reserve or guard units of at least squadron size but do not otherwise satisfy the criteria for a major installation (in other words, they lack property, oftentimes runways and support facilities, and they usually rely on the major installations for their existence). This rather dry description doesn't begin to adequately convey the importance AFSSs had in the United States during the 1950s and 60s, or the extent of their use.

For most people, the term "Air Force Station" was interchangeable with "Air Force Base"; they knew where the "base" was, and that there were Air Force personnel in the community. They might have noticed that there weren't any aircraft; usually just a bunch of warehouses or some radomes off at the end of a road somewhere outside of town, and the impact on the local community, economically and socially, was considered minimal. When the AFS closed, it was felt but there wasn't anywhere near the normal hue and cry associated with the closure of a SAC or TAC base. There was regret; for many communities of small town America, the local Air Force Station was visible evidence of their personal contribution to the defense of the United States.

At one time AFSSs were a major portion of the Air Force, in manpower alone nearly equaling the numbers of airmen assigned to the major installations. Primarily concerned with the air defense of the country, Air Force Stations also served as supply depots and research facilities. To fulfill their mission, many were placed in remote locations and did in fact require extensive support facilities and personnel (and, in Alaska, runways). They were built up rapidly following the Korean War, and just as quickly started declining in number due to personnel and budgetary concerns.

Towards the end of the 1950s there were over 200 operational Air Force Stations. As technology advanced, the perceived threat lessened and the Vietnam War expanded, their missions were assumed elsewhere, consolidated or turned over to other organizations. As of 1990, there are only nine Air Force Stations left in the United States. Those that have been closed are now used for civilian or government purposes or are simply abandoned.

The following is a list of Air Force Stations in Hawaii, Alaska and the continental United States. Due to the preponderance of sites assigned to Air Defense Command as part of NORAD's immense radar/command and control network, additional information is provided on major US military installations with air defense radar, surveillance or command and control units. An additional section provides information on the Canadian sites.

Alphabetically, the commands that operated Air Force Stations were:

AIR/AEROSPACE DEFENSE COMMAND

As the major command tasked with aerial defense of the United States, ADCOM operated the majority of the Air Force Stations.

Radar Deployment

In late 1947 belated plans were made for adequate radar coverage of the country, this being in response to rising tensions worldwide and the realization that the Soviet Union was no longer a noble ally. The initial plan for 300 radars was designated SUPREMACY; older AN/CPS-1 and AN/CPS-5 radars were to be utilized along with more modern AN/CPS-6B and AN/FPS-3s. The existing radars in the Pacific Northwest and around Albuquerque were ordered into 24-hour-a-day service to protect the nation's nuclear research facilities, while the Air Force rushed to get additional radars on line.

This early system didn't work, a result of technical, siting, budgetary, training and operational problems. As of 9 Sept 48, SUPREMACY had officially been reduced to 61 radars (of which five were in service) and 10 control stations. The assignment of ADC to Continental Air Command (CONAC) as an operational command didn't help, and the 1949 defense budget cuts effectively killed the system. Deployment stopped with 13 radars.

The explosion of the Soviet's first Atomic Bomb in August 1949 got things going again; between that event and the outbreak of the Korean War, building an effective radar and the interceptor defense network became a national priority. It also resulted in the reactivation of ADC as a major command.

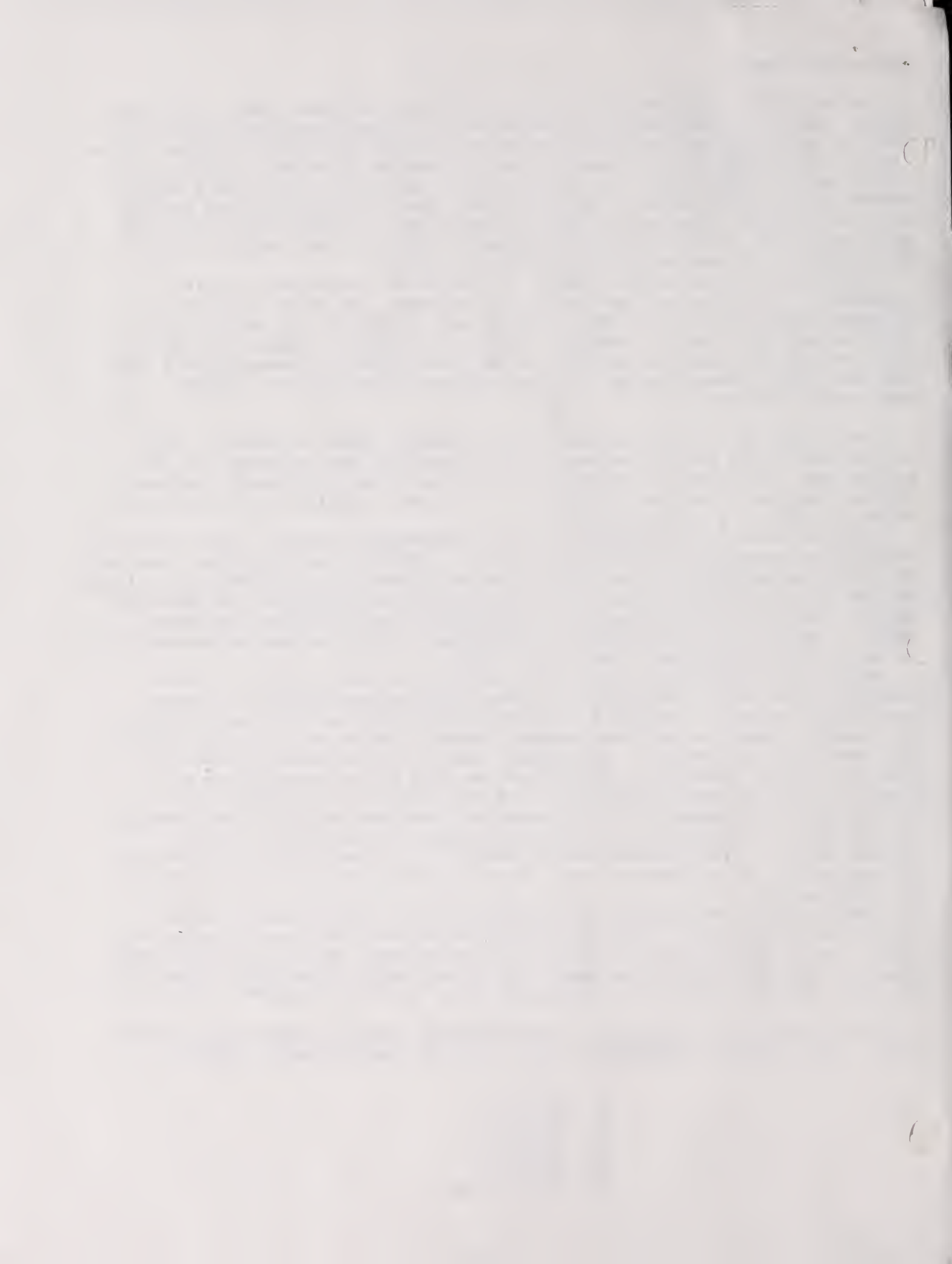
The follow-on to SUPREMACY was the PERMANENT network, with planning and siting commencing in December 1949. The initial schedule involved 75 sites equipped with the CPS-5; the southeastern and central portions of the country would be the last to receive coverage due to emphasis on the population and industrial centers of the northeast and west coast. Ten control stations were planned, with the entire network to be operational no later than 1 July 1951.

While the PERMANENT network was being developed, the Air Force decided to go with the radars on hand and fielded AN/CPS-5s under the LASHUP program (LASHUP being considered the perfect description: it brought images of an obsolescent radar, lashed with frayed rope to the top of an old pole). Deployment was in three phases: Phase I was the initial emergency deployment around high-value locations, Phase II covered the northeastern US and Phase III extended into California. An example of the ongoing problems with the deployment of the radar network was the limited number of available height-finder radars. The completion of Phase II in the spring of 1949 put 18 radars in the northeast; only five height-finders were available for the region.

Under LASHUP the Eastern Air Defense Force (EADF) was able to establish a five day, six-hour-a-day operational defense by January 1950. In February the 25th AD in the northwest was on 24-hour-a-day status. By the end of the year, 43 radars were in service; eventually several LASHUP sites were redesignated as LASHUP PERMANENT radars.

While LASHUP was underway, the PERMANENT network commenced deployment. The initial PERMANENT setup included the following radars:

24	AN/FPS-3
23	AN/CPS-5
2	AN/CPS-1
26	AN/CPS-6B
15	AN/CPS-4
10	AN/CPS-10B



Developmental problems continued to play havoc with the schedule; the original date of 1 Jul 51 for 75 operational radars under the PERMANENT plan was delayed until 1 November. It was later slipped to 1 January 1952.

In mid-1950 a plan was devised for the deployment of 44 additional radars to cover the growing number of Strategic Air Command bases: this MOBILE radar would utilize AN/MPS-7, AN/MPS-11 and AN/MPS-14 radars. Additional radars were scheduled to complete the air defense coverage of the southeastern portion of the country. 44 new sites were surveyed by June 1951, covering SAC installations and doubling the defenses in the northeast, northwest and California. 35 additional radars were approved in July 1952 as Phase II; the third and final set of 29 radars for the southern United States was approved in 1954.

One interesting note about the MOBILE network: HQUSAF decreed that all radars deployed under this plan would indeed be mobile, mounted on trailers and ready for deployment elsewhere in the world in the event of an emergency. ADC fought the order and was authorized to mount the radars on towers.

Canadian Deployment

In 1951 the US and Royal Canadian Air Forces agreed upon a network of 35 radars in Canada, with the US financing 22 of them. Of those 22, ADC would man 8 and Northeast Air Command (NEAC) the remaining 14. This agreement was reached without the approval of the two governments, which meant the normal amount of inter and intra-government jockeying and modification took place before the Canadian sites were finally agreed upon and built. ADC and NEAC assumed operational control of their sites; almost all would be turned over to the RCAF by the early 1960s.

This primary radar "fence" in Canada was the CADIN (Continental Air Defence Integrated North)-PINETREE line and was roughly along the 50th parallel. As in the United States, the CADIN stations tied into a complete air defense network via regional operations centers, which controlled RCAF interceptors. Later Canada deployed a series of doppler radars roughly along the 60th parallel. Similar in concept to the US deployment of Gap-Filler radars, this line was designated the Mid-Canada system.

A few of the Canadian radar stations still serve as joint civilian/military sites, comparable to the FAA JSS system.

The Texas Towers

The Texas Towers were sea-based radar platforms designed to extend the radar horizon in the northeast; the name came from their similarity to oil rigs in the Gulf of Mexico. Six towers were originally planned and five were sited but only three were built and put into operation; the FY 57 defense budget deleted funds for two. ADC and the Air Force had to fight the US Navy to get the radar sites deployed, the Navy feeling that any seaward extension of the continental defenses was their responsibility. Indeed, Naval Forces-CONAD (Continental Air Defense Command) controlled airborne and surface-unit radars in both the Atlantic and the Pacific. After some time of operations, ADC suggested to HQUSAF that, due to the expense

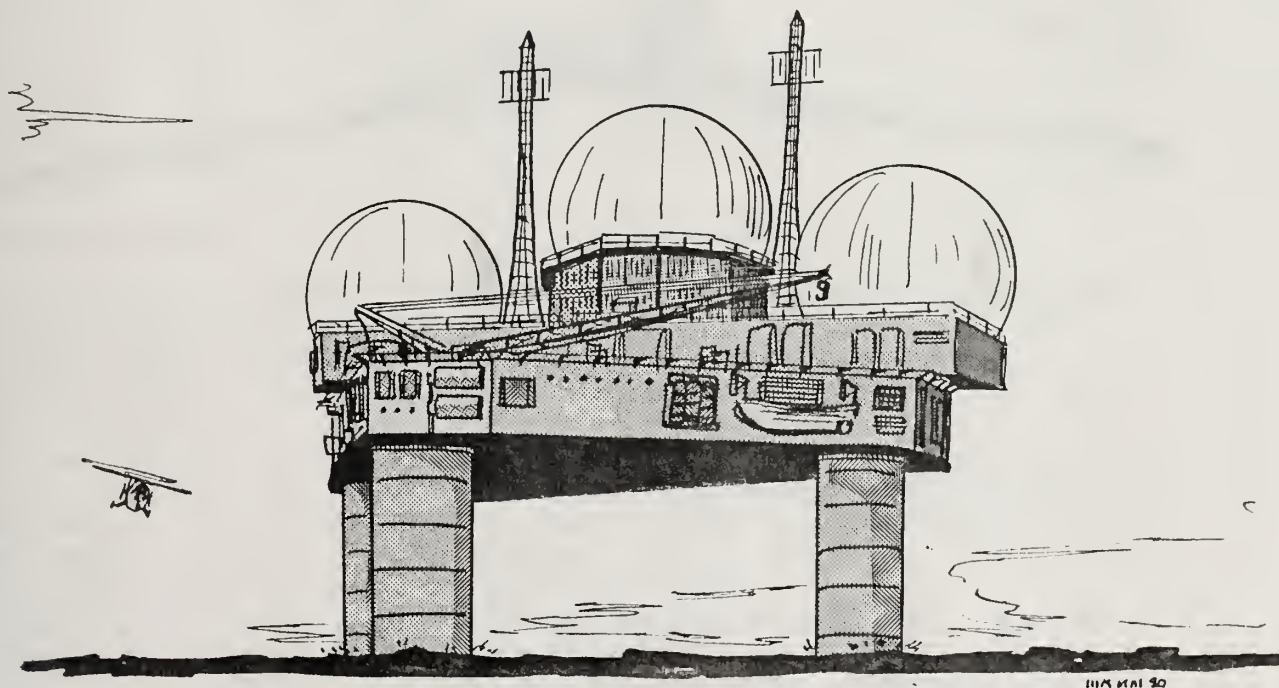
and maintenance involved maybe the Texas Towers should be turned over to the Navy. Headquarters vetoed the suggestion.

Each tower was equipped with one AN/FPS-3 radar and two AN/FPS-6 height-finders. The first operational tower was TT-2, on Georges Shoal off Cape Cod: initial manning in May 1956 was by a detachment of the 762d AC&WS. The 4604th AC&WS (Texas Tower), activated 8 Oct 56 at Otis AFB and later redesignated as a support squadron, provided further operational and logistic services. Normal complement onboard the towers was 70 personnel.

The system was dismantled following the collapse of TT-4 on 15 Jan 61 during a storm. At the time of the disaster only 14 Air Force and 14 contractor personnel were onboard due to repairs being performed as a result of earlier storm damage. Only one body was recovered.

In the aftermath, the Commander of the Boston Air Defense Sector and two successive 4604th SS commanders had charges brought against them for dereliction of duty. The sector commander, COL William M. Banks, was court-martialed and acquitted.

The 4604th inactivated on 1 Jul 63, while tower demolition was completed by August 1964.



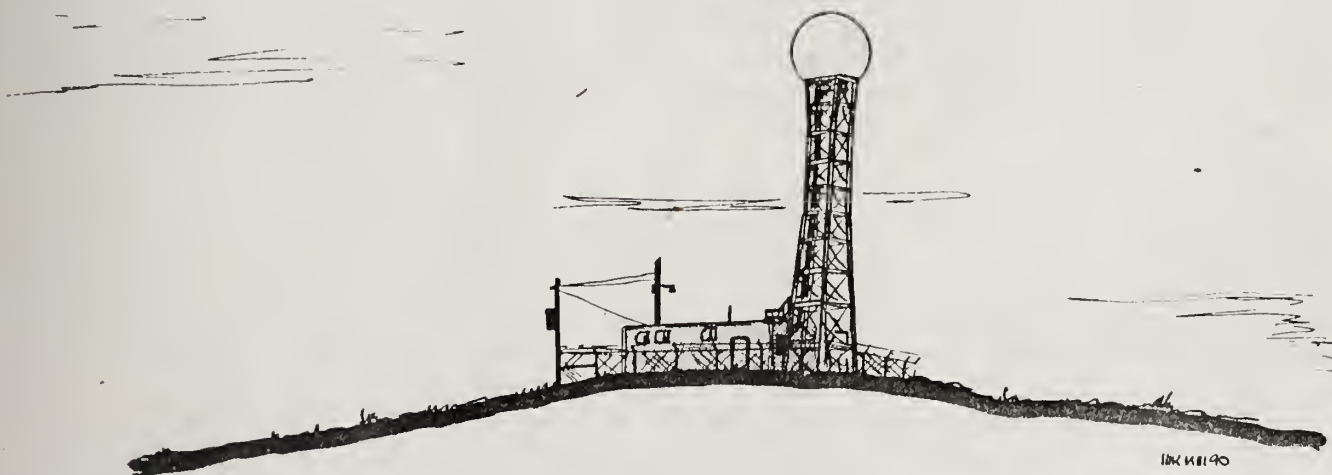
Gap-Filler Radars

As the deployment of the radars continued under the various programs, it became apparent that several large segments of the continent would have poor coverage. The US Congress was making noise about the growing expense of the radar and interceptor networks and wondering why they weren't getting a 100% "air tight" defense; the Air Force was concerned over the expense of the Ground Observer Corps as compared to its effectiveness. As a solution, the Gap-Filler network was developed in 1951 specifically designed to detect low-flying aircraft in those areas of the country where coverage by the primary radar sites was terrain or range-limited.

ADC initially planned for the installation of 323 AN/FPS-14 radars:

requirements in the mountainous western United States quickly drove the number up to 625 sites. Less stringent requirements were agreed upon in 1955, resulting in the planned installation of 22 Phase I and 183 Phase II radars. By Jun 1959 236 AN/FPS-14 and AN/FPS-18 radars were in place. Several of the Gap-Fillers were former Air Force Stations, converted to remote operation and linked to other major radar sites. While normally unmanned (except for maintenance reasons), the Gap-Fillers were designated as detachments of the radar squadrons.

Over the years, several Gap-Fillers were reassigned from one squadron to another; these changes in assignment and site designation are provided where known.



Station Designations

As the various deployment plans were conceived and the stations planned, each AFS was assigned an alphanumeric designation. The letters indicated the type of equipment installed or phase of installation, with a number assigned to the station (or, in a few cases, the squadron).

Gap-Filler sites were designated sequentially as detachments of the main sites. When the GFA was operationally transferred from one AS to another, it received a new number; in several instances GFAs were redesignated while still assigned to the same AFS, probably as a result of the activation of additional sites.

An example of the designation system was yaak AFS, MT. It was activated under the PERMANENT network as radar site P-11. Once converted to a Gap-Filler, it was redesignated TM-179B, or, Det 2 of the 716th RS(SAGE) at Kalispell AFS, MT. Following transfer to the 823d RS(SAGE) at Mica Peak AFS, WA as Det 5 the former AFS was redesignated SM-151E.

Radar Site Designations

C	-	Canadian Radar
DC	-	Direction Center
L	-	LASHUP Radar Network
LP	-	LASHUP Permanent Radar
M	-	Semi-Mobile Radar, Phase I
P	-	PERMANENT Radar Network
RP	-	Relocated PERMANENT Radar
SUPREMACY	-	the first radars deployed as part of the interim AC&WS system for air defense
SM	-	Semi-Mobile Radar, Phase II
TM	-	Semi-Mobile Radar, Phase III
Z	-	FAA station designator

SAGE Development

Early operations under manual control proved the requirement for some sort of automated air defense system; the existing method of manual plotting and voice communication of track information wasn't adequate and left too much room for error. A new system that could tie together the various Air Force Stations, rapidly generate target tracking data and determine interceptor requirements was needed.

In 1949 Dr George E. Valley, a Physicist at MIT, wrote Dr Theodore von Karman concerning the failings of the existing system. In the face of Soviet nuclear weapons and a growing intercontinental bomber threat, he recommended that US air defenses be upgraded substantially. As a result, the Air Defense Systems Engineering Committee (ADSEC) was formed with Dr Valley as chairman. The committee went to work on a computerized system that would make the necessary calculations and transmit/receive data automatically via phone lines.

Lincoln Laboratory was formed as a subsidiary of MIT at Cambridge, MA to put the concept into operation. The first system, dubbed the "Cape Cod Defense", was operational by 1953. Incorporating the radars at North Truro AFS and utilizing a Whirlwind I computer, the system successfully coordinated Ground Observer Corps inputs, weather characteristics, filed flight plans and other sources to determine the presence of and track unidentified contacts. Later that year, Lincoln made a formal proposal for the deployment of the SAGE (Semi-Automatic Ground Environment) network.

Full system development and deployment was a group effort; IBM built the AN/FSQ-7 computer, Burroughs Corporation built the data transmission system and Western Electric provided engineering management services. ADC activated the 4620th Air Defense Wing (SAGE Experimental) on 1 Jun 55 at the Lincoln Laboratories facility in Lexington, MA; the wing served as the primary test and training organization until 1961.

As built, the SAGE buildings were of a standard design: four-story, windowless and blastproof concrete structures with six-foot-thick exterior walls and twelve-foot-thick control center walls. The Combat Direction Center itself was located in a two-story portion at the center of the building. Each SAGE building had a self-contained diesel-electric powerplant and two 400-ton-capacity air conditioning units.

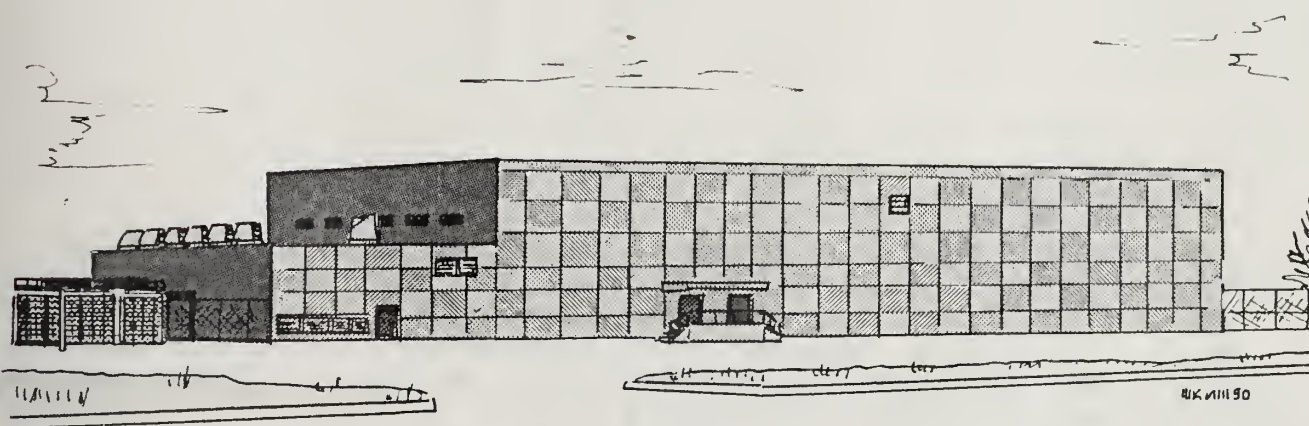
Construction of the SAGE blockhouses and necessary communications facilities commenced in the mid-50s; the first operational SAGE center was at McGuire AFB, going into service under the 4621st ADW (SAGE) on 26 Jun 58. Twenty-one centers followed:

Adair AFS, OR	McChord AFB, WA
Beale AFB, CA	Minot AFB, ND
Custer AFS, MI	Norton AFB, CA
Duluth Muni AP, MN	Richards-Gebauer AFB, MO
Fort Lee AFS, VA	Sioux City Muni AP, IA
Grand Forks AFB, ND	Stead AFB, NV
Gunter AFB, AL	Stewart AFB, NY
K.I. Sawyer AFB, MI	Syracuse AFS, NY
Larson AFB, WA	Topsham AFS, ME
Luke AFB, AZ	Truxa Field, WI
Malmstrom AFB, MT	

Probably for economic reasons, and justified by the minimal

bomber threat from the south, the SAGE network was not extended along the southern tier. The planned installation at Kirtland AFB was cancelled (resulting in the deactivation of the Albuquerque ADS after all of ten months). A manual direction center was built at Oklahoma City AFS.

The SAGE buildings remained in place and found other uses as the various Air Defense Sectors/Air Divisions were inactivated. They are unique; there are no other structures like them in the US Air Force. With the exception of the 25th AD combat center at McChord AFB, none of the former SAGE blockhouses are in use for air defense purposes.



BUIC

As the threat from Soviet ballistic missiles increased, Air Defense Command realized steps would have to be taken to improve the survivability of its combat operations centers. ADC requested that funds be made available to enable hardening of the SAGE centers; this request was denied by Headquarters US Air Force for budgetary reasons. As a fall back, and to enable some sort of interceptor control following a nuclear exchange, ADC developed the Backup Interceptor Control (BUIC) system for deployment among existing Air Force Stations.

BUIC-modified stations had communications and computational upgrades that enabled them to function as something of a "mini-SAGE" center. Several of the stations were operated by Air Defense Groups; all were prepared to assume operational control of their portion of the sector if necessary.

BUIC was to be operational at 34 stations by October 1966, with three phases of installation: Phase I, which was completed in May 1963, was the interim system of minor modifications enabling local control of existing radars. Phase II was the fully computerized system: North Truro AFS was the first on alert, on 1 Sept 65. Phase III, originally called Improved BUIC, had additional modifications in control and communications. The first site, at Fort Fisher AFS, NC, was completed on 8 Dec 68. Two Canadian sites were built, with Senneterre entering service first, on 1 Dec 68.

Actual deployment of BUIC was limited to 14 each of the Phase II and Phase III; as is, the deployment of BUIC was used by DOD as justification for the closure of several SAGE centers.

Operations

The ADC/CONAD/.NORAD network of radar-equipped Air Force Stations and Gap-Fillers was essentially complete by 31 Dec 59. On that date the total long-range and gap-filler radar deployment consisted of:

11	CPS-6B/FPS-10
40	MPS-7/FPS-3
74	FPS-20
15	MPS-11/FPS-8
66	FPS-14
48	FPS-18
35	FPS-19
57	FPS-23
7	GPS-3
2	FPS-7
1	ARSR-1

By the end of 1961, the network was effectively complete and fully operational. Twenty-two SAGE centers were in service, the DEW line extensions had been completed (see the Alaskan Air Command section) and two of the Texas towers remained. From 1961 on the Department of Defense cut back severely on radar defenses and ADC-operated AFSs. Several Air Force Stations were converted to remote operation and assigned to the gap-filler network. Other sites were inactivated, generally from the central and southern United States out.

The Air Force and ADC fought the reductions tooth and nail and continued to press for upgrades in the systems. Remaining sites had their older radars replaced with systems designed to operate in an EW environment. The AN/FPS-74 was developed to take the place of the AN/FPS-14s and -12s, while AN/FPS-7s, -20s, -24s and -35s replaced others. The total number of radars changed constantly as the budget shifted, but ADC was able to make good an extensive update. For example, the last operational AN/FPS-3 went out of service at Havre AFS, MT in July 1964.

Several sites were activated during the 1960s with newer, primarily special-design radars. These included an AN/FPS-85 installation at Eglin AFB (the phased array radar being intended to close gaps caused by the inactivation of several gulf coast AFSs), an AN/FSS-7 radars at six locations for SLBM detection. Deployment of the phased array AN/FPS-115 PAVE PAWS radars commenced in the late 1970s.

Despite its efforts, Air Defense Command resources and personnel continued to decline into the 1970s. In 1967 DOD ordered the closure of the remaining central and southern radar sites, over the protest of the Air Force and ADC. In 1969 DOD directed the development of the National Airways System or NAS, through which the FAA and ADC surveillance systems would merge. This led to the current Joint

Surveillance System (JSS). The plan called for a drastic reduction in Air Force sites and personnel, with overall command and control exercised at eleven FAA Joint Control Centers.

After taking a look at the cost of NAS, some members of congress expressed concern and directed ADCOM to study an "austere" configuration for the JCCs. The ADCOM response was that the NAS wasn't far enough into design to enable the determination of an austere configuration. In any event, it was reported that the system as originally planned would only have about 25% of the existing SAGE system capability (and by this time the SAGE network was down to six combat command centers). This, along with other protests and alternative studies by the Air Force, was ignored and the decline continued. By the end of 1970 the Air Force had 69 long-range radars, 12 BUIC III sites and no gap-fillers remaining.

On 26 October 1971 a surprise arrived at New Orleans International Airport: a Cuban transport, carrying delegates for the International Sugercane Technological Conference, without prior permission or notification. The first anyone knew of the presence of an unidentified aircraft was when the plane called the tower and asked for landing instructions.

The result was fairly quick: the Department of Defense established the Southern Air Defense (SAD), remanning ten former radar sites and relocating several interceptor detachments along the Gulf Coast. In 1972, this brief flurry of interest in radar defenses had subsided enough where DOD felt comfortable closing 11 of the remaining 12 BUIC III sites. The sole remaining operational BUIC site was at Tyndall AFB; the others were reduced to an unmanned standby status.

Following the demise of ADCOM, five of the remaining six SAGE centers were closed (the exception being the 25th AD site at McChord). Air defense surveillance operations for the rest of the country were transferred to new facilities at March AFB, CA and Griffiss AFB, NY while the Tyndall installation assumed sector



758th RS
Makah AFS, WA

The Squadrons

Aircraft Control and Warning Squadrons along the northern tier and those facing the oceans were generally tied into the SAGE network and redesignated as Radar Squadron (SAGE) from 1959-1963. They were further connected to the BUIC centers.

Squadrons along the southern portion of the United States retained the AC&WS designation for the most part, assigned to primary and remote manual control centers. Squadrons operational on 1 Feb 74 were redesignated as "straight" Radar Squadrons, this being part of the final shutdown of the SAGE system.

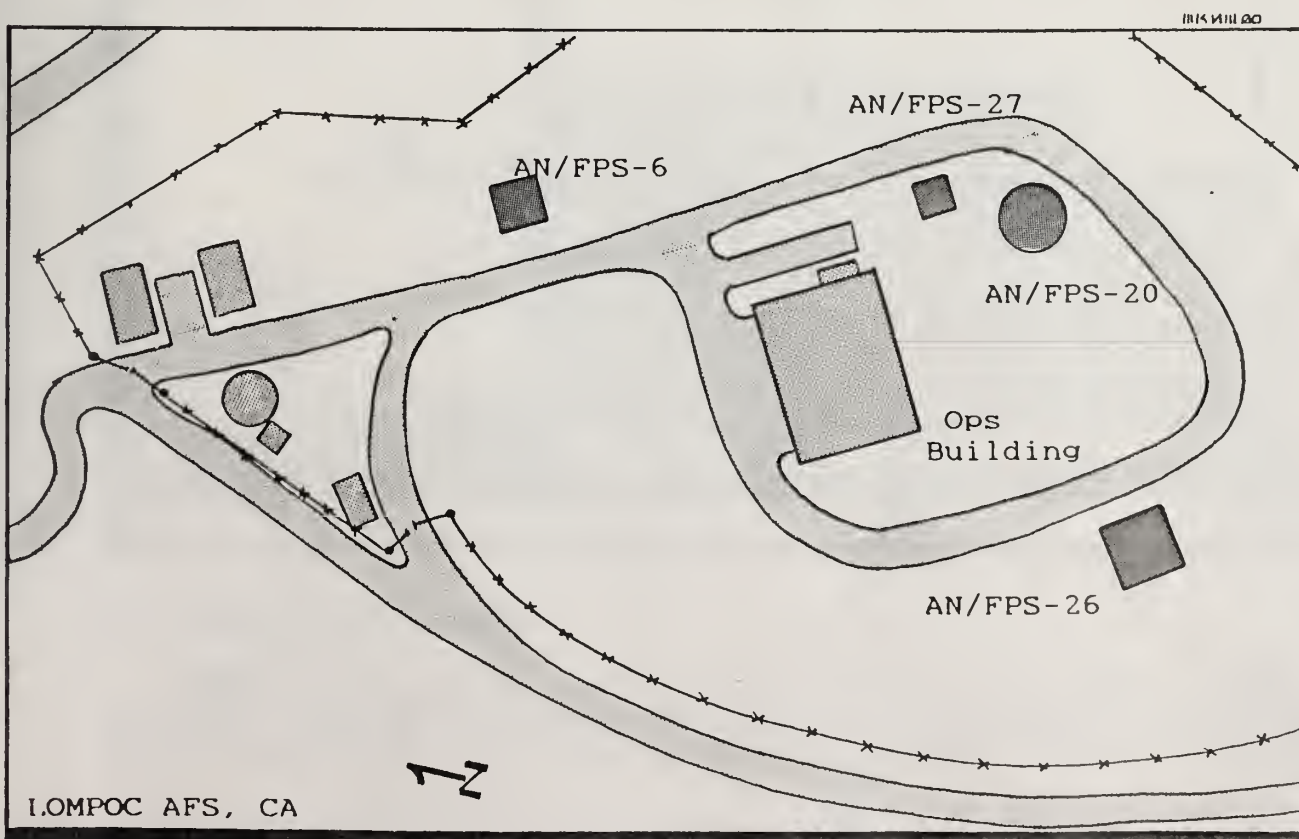
Squadrons active on 1 Oct 79 were transferred to Tactical Air Command along with the remaining air defense

AFSSs; the space and missile defense-oriented sites went to SAC. From 1979 through 1988 the squadrons were inactivated, with the majority of the sites being turned over to the FAA as part of the Hughes-developed Joint Surveillance System. USAF operations continued at the sites; the height-finding radars were manned by Operating Locations (OLs) of the Air Defense Squadrons assigned to the appropriate Air Division. With the inactivation of the 23d and 26th ADs in 1987 and the establishment of four geographic Air Defense Sectors the OLs were assigned to the sectors. Each OL has a two-letter identifier (OLAA, OLAG, etc).

The last squadron to inactivate was the 758th RS at Makah AFS, WA on 15 July 1988. The last air defense AFSSs closed later that year. In 1989 First Air Force started closing down height-finder radar operations at the JSS sites. As part of the planned upgrade of the JSS system, the existing radars will be replaced by newer minimally attended radars, designated ARSR-4. Estimate on completion is the early 1990s.

The Sites

The major sites consisted of one or more radomes, with a number of support buildings including power supply, administrative, living quarters and the like. Generally, the radars were located at high elevations; in mountainous areas the radars and their watch standing and power supply buildings were placed on mountain tops with the admin/barracks area at the base of the mountain. An example of this practice is Naselle AFS in southwest Washington. Ironically, Washington is also the site of physical proof of Murphy's Law: Curlew AFS was supposed to be built atop Mount Bonaparte in the northeastern corner of the state. For whatever reason, the materials were placed on Mount Bodie instead, and that's where the AFS was completed.



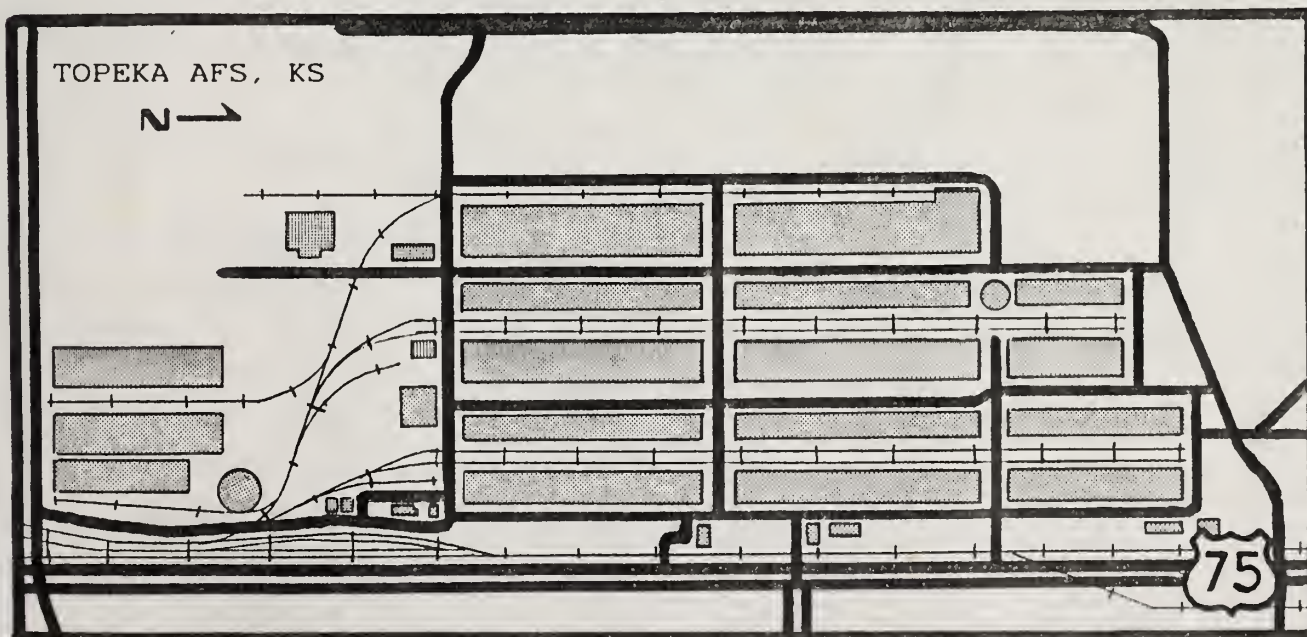
Flatland sites were normally contained in a single area; most of the ADC stations included housing for married squadron personnel and the squadron commander located adjacent to the main gate.

Gap-Filler sites that were former AFSs are sizable and are fairly easy to locate. Built-for-the-purpose Gap-Fillers consisted of a single building with radar tower alongside, had no permanent Air Force contingent (in other words, the local post office personnel probably won't remember the presence of any blue-suiters), and will be difficult to find.

AIR FORCE LOGISTICS COMMAND

Air Materiel Command and its successor, AFLC, operated two types of Air Force Stations. The primary type was the materiel support or specialized depot and can be recognized by acres of warehouses, usually with multiple railroad tracks and support buildings. Examples include Gentile AFS in Dayton, OH (which continues to serve as a specialized electronics facility) and Cheli AFS in Maywood, CA (near Los Angeles). The depot AFSs were normally assigned to an Air Materiel Area (later Air Logistics Center) for administrative purposes, however, they were independent installations.

During the B-36 era, AMC also operated independent AFSs as specialized nuclear weapon storage facilities. Adjacent to several B-36 equipped Strategic Air Command bases, these installations featured secure bunkers as well as complete barracks, administrative, personnel and support areas. All were merged with their adjacent Air Force Base during 1962.



AIR FORCE SPACE COMMAND

Air Force Space Command, established on 1 September 1982, acquired from SAC those Air Force Stations that were concerned with space surveillance and ballistic missile early warning. Several

**ING (416L) SYSTEM
RADIO SITES**

SON BAY SECTOR

GOOSE NORAD SECTOR

NORTHERN NORAD REGION

OTTAWA ADS

BANGOR ADS

DULUTH ADS

SAULT STE. MARIE ADS

BOSTON ADS

NEW YORK ADS

26th A.D.

SYRACUSE ADS

DETROIT ADS

WASHINGTON ADS

CHICAGO ADS

30th A.D.

MONTGOMERY ADS

32nd A.D.

LEGEND

- NORAD SECTOR DIRECTION CENTER (SAGE)
- NORAD REGION COMBAT CENTER (SAGE)
- NORAD REGION COMBAT CENTER (MANUAL)
- NORAD REGION COMBAT CENTER (REMOTE)
- RADAR SITE ONLY (SAGE)
- RADAR & RADIO SITE (SAGE)
- GAP FILLER (SAGE)
- RADIO SITE
- RADAR & RADIO SITE (MANUAL)
- GAP FILLER (MANUAL)
- SURVEILLANCE STATION (FAA)
- MASTER SURVEILLANCE STATION (FAA)
- MASTER DIRECTION CENTER (MANUAL)
- TEXAS TOWER
- SECTOR BOUNDARIES (ULTIMATE)
- AIR DIVISION BOUNDARIES

ON OAP FILLERS WITH DUAL DESIGNATOR, THE SECOND DESIGNATION INDICATES PROGRAM IDENTITY

DCs (SAGE) - 21
DCs (Manual) - 1
CCs - 3
RCCs - 2 K.C. and
CC (Manual) - 1
CC/DC - 1 NNR
Radars - 177

ON OAP FILLERS WITH DUAL DESIGNATOR, THE SECOND DESIGNATION INDICATES PROGRAM IDENTITY

- +— LEGEND —+—

	NORAD SECTOR DIRECTION CENTER (SAGE)		RADAR & RADIO SITE (MANUAL)
	NORAD REGION COMBAT CENTER (SAGE)		GAP FILLER (MANUAL)
	NORAD REGION COMBAT CENTER (MANUAL)		SURVEILLANCE STATION (FAA)
	NORAD REGION COMBAT CENTER (REMOTE)		MASTER SURVEILLANCE STATION (FAA)
	RADAR SITE ONLY (SAGE)		MASTER DIRECTION CENTER (MANUAL)
	RADAR & RADIO SITE (SAGE)		TEXAS TOWER
	GAP FILLER (SAGE)		SECTOR BOUNDARIES (ULTIMATE)
	RADIO SITE		AIR DIVISION BOUNDARIES

USAF UNIT LINEAGE AND HONORS

UNIT DESIGNATION

62d Radar Squadron

STATUS

- ☒ ACTIVE
☐ INACTIVE
☐ DISBANDED

COMPONENT OF

- ☒ REGULAR AIR FORCE
☐ AIR FORCE RESERVE
☐ AIR NATIONAL GUARD
☐ UNALLOTTED

ASSIGNED TO

21st Air Division (ADC)

LINEAGE

Constituted 762d Aircraft Control and Warning Squadron on 16 Nov 1950. Activated on 27 Nov 1950. Redesignated 762d Radar Squadron (SAGE) on 15 Dec 1958. Inactivated on 1 Mar 1970. Redesignated 762d Radar Squadron on 15 Jan 1974. Activated on 17 Jan 1974. *Inactivated on 1 Jul 1985.*

SEE AFP 210-1-4

HONORS (See reverse side for listing)

SERVICE STREAMERS: None

CAMPAIGN STREAMERS: None

ARROWHEADS: None

DECORATIONS: None

PREPARED BY

THE ALBERT F. SIMPSON HISTORICAL RESEARCH CENTER, USAF

DATE PREPARED

23 Sep 1974

DATA THRU

26 Feb 74

SUPERSEDES STATEMENT PREPARED

N/A

APPROVED BY

JAMES N. EASTMAN, JR
 Chief, Research Branch

762d Radar Sq - 3

ASSIGNMENTS. 540th Aircraft Control and Warning Group, 27 Nov 1950; 32d Air Division (Defense), 6 Feb 1952; 4707th Defense (later, Air Defense) Wing, 16 Feb 1953; 4622d Air Defense Wing (SAGE) (later, Boston Air Defense Sector), 18 Oct 1956; 35th Air Division, 1 Apr 1966; 21st Air Division, 19 Nov 1969-1 Mar 1970. 21st Air Division, 17 Jan 1974-; *24th Air Division, 23 Sep 83-1 Jul 85.*

STATIONS. North Truro (later, North Truro AFS), Mass, 27 Nov 1950-1 Mar 1970. North Truro AFS, Mass, 17 Jan 1974-1 Jul 1985.

COMMANDERS. Capt Raymond L Scheid Jr, 27 Nov 1950; Capt John Zupko, 16 Dec 1950; Lt Col Frank M Curtis Jr, 15 Jan 1951; Maj James R Hartley, 20 May 1951; May Lee J Hoddy, c. 1 Aug 1951; Maj Rufus Woody Jr, 13 May 1952; Maj John F Sherwin, (by Jun) 1953; Maj Roderick A Kallman, (by Nov) 1954; Maj John F Sherwin, 3 Jul 1956; Maj (later, Lt Col) Chester A Kendrick, 1961; Maj George W Tolbert, c. Apr 1964; Maj John W Weinig, 15 May 1964; Lt Col Chester A Kendrick, c. Aug 1964; Maj John W Weinig, 8 Sep 1964; Lt Col James R Geary Jr, (by Dec) 1965; Lt Col William D MacMonagle, 28 Mar 1967; Col Eldor H Schueler, 20 Sep 1967; Lt Col John N Evans Jr, 17 Nov 1967; Col Alva D Henahan, c. Jun 1969-1 Mar 1970.

EMBLEM.* Description. On a disc divided per pale medium blue and blue bordered gold, issuing from base in pale between green ground with white clouds shaded gray on the horizon line in dexter base and three white bars wavy in sinister base, a radome counterchanged white detailed gray on the dexter side

*Information furnished by AF Mil Per Cen (DPMSAA), Randolph AFB, Tex, 18 Apr 1974.

and gray detailed white on the sinister, emitting three gold lightning flashes to dexter and radiating 15 gold stars in three arcs, seven, six and two to sinister. In the dexter top of the disc two gray flight symbols ascending each trailing a white contrail. Emblem between two white scrolls edged gold. Lower scroll inscribed in blue capital letters. Significance. Against the background of blue depicting the sky, the primary theater of Air Force operations, the radome between the land the sea alludes to Cape Cod, the area where the unit was organized in 1950. The two shades of blue refer to the squadron's day and night around-the-clock operations. The flight symbols represent interceptors and the lightning flashes electronics, and signify the unit's air defense mission of control of defensive weapons electronically. The placement of the stars seven-six-two indicates the squadron's numerical designation. The emblem bears the Air Force colors, gold and ultramarine blue. Motto: Potent Defense--Permanent Peace. Cable numbers of colors: white (65005); gold (65023); gray (70151); green (70167); medium blue (70211); and blue (65010). Approved by Hq USAF on 28 Sep 1965.

